REMARKS

This Preliminary Amendment is being filed in response to the final Official Action of July 12, 2007, and concurrent with a Request for Continued Examination (RCE). The final Official Action no longer rejects various ones of the claims under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. 2005/0086318 to Aubault; and various others of the claims under 35 U.S.C. § 103(a) as being unpatentable over Aubault, in view of either U.S. Patent No. 6,157,982 to Deo, or U.S. Patent No. 6,449,695 to Bereznyi. Instead, the final Official Action now rejects all of the pending claims, namely Claims 1-39, as being unpatentable over Aubault, in view of both Deo and Berenzi.

In addition, Applicants note that the Official Action appears to introduce a rejection of at least some of the claims under 35 U.S.C. § 101 as being directed to non-statutory subject matter. However, the Official Action merely includes what appears to be a form paragraph without any particular allegation or support for this rejection. Thus, to the extent that the Official Action intended to reject any of the claims under § 101, Applicants respectfully submit that the Official Action fails to establish a *prima facie* case that any of the claims are directed to non-statutory subject matter. That is, the Official Action fails to identify any particular claim to which the rejection applies, noting that the Official Action rejects "Claims X-Y" under § 101, and that the present application does not include a Claim X, a Claim Y or any claim numbered therebetween.

As to the rejection of the claims as being unpatentable over Aubault, in view of both Deo and Berenzi, Applicants respectfully disagree and submit that the claimed invention is patentably distinct from all of Aubault, Deo and Berenzi, taken individually or in any proper combination, as explained in greater detail below. Nonetheless, Applicants have amended various ones of the claims to further clarify the claimed invention, including canceling Claims 8 and 10. In view of the amendments to the claims and the remarks presented herein, Applicants respectfully request reconsideration and allowance of all of the pending claims of the present application.

As explained in response to the first Official Action, Aubault discloses a system and method for transmitting objects between a server and a client terminal using a cache management. As disclosed, the client terminal maintains a cache memory for storing objects transmitted by the server. The system further includes, upstream of the client terminal, such as

in the server or an intermediate proxy server, management of a list of objects present in the cache memory of the respective client terminal. By managing the list upstream of the client terminal, Aubault purports to limit exchange of data concerning the content of the cache memory between the client terminal and the server.

As further disclosed by Aubault, on receiving an object from the server, the client terminal may store the object in the cache memory if a filling ratio of the cache memory is below a threshold. If the filling ratio is above the threshold, however, the terminal evaluates relevance criterion for the received object. Then, if the cache memory includes objects with relevance criterion lower than that of the received object, the terminal deletes the less relevant object from the cache memory and replaces it with the received object. Otherwise, if the cache memory does not include a less relevant object, the client terminal rejects the received object.

Amended independent Claim 1 recites an apparatus including a processor configured to receive a status of one or more pieces of content stored in memory of a terminal located remote from the apparatus, where each piece of content is associated with parameters including a client expiration time and a deletion priority value. In addition, the processor is configured to send one or more instructions to the terminal based upon the status and the associated parameters to at least partially control storage of the piece(s) of content in memory of the terminal.

The Official Action alleges that Aubault discloses all of the recited features of independent Claim 1, but concedes that Aubault does not teach or suggest a remote network entity configured to at least partially control storage of content in memory of the terminal. For this feature, the Official Action cites Deo, and alleges that one skilled in the art would have been motivated to modify Aubault per Deo to decrease the processing burden on a terminal. Further, the Official Action concedes that neither Aubault nor Deo, taken individually or in any proper combination, teaches or suggests content associated with a content expiration time, and controlling storage of content based on such an expiration time. For this feature, the Official Action cited Bereznyi, and alleges that one skilled in the art would have been motivated to modify the alleged combination of Aubault and Deo per Bereznyi to increase flexibility in the Aubault/Deo combination as to how the combination manages a terminal's memory. As explained below, Applicants respectfully disagree.

A. Client Expiration Time and Deletion Priority Value

In contrast to amended independent Claim 1, as conceded in the final Official Action, Aubault does not teach or suggest content associated with multiple parameters including a client expiration time and a deletion priority value, and controlling storage of that content based on those parameters. The Official Action nonetheless alleges that Bereznyi discloses this feature, and that it would have been obvious to one skilled in the art to modify Aubault to include it. As motivation, the Official Action alleges that adding a client expiration time to the Aubault system and method would "give Aubault's system more flexibility on how it manages the terminal's memory." Official Action of Jul. 12, 2007, page 9. Applicants respectfully disagree and again submit that even if Aubault and Bereznyi did disclose respective elements of amended independent Claim 12 (although expressly not admitted), one skilled in the art would not have been motivated to combine their teachings to disclose the claimed invention.

As explained in response to the first Official Action, Aubault discloses a cache management system and method that bases maintenance of objects in cache memory of a client terminal on the relevance of those objects to a user of that client terminal. As disclosed, the system and method is directed to a server sending, to a client terminal, information for real-time display of a scene or video having some spatial relationship to the client terminal, or rather a user of the client terminal. The server sends objects to the client at least partially based on display information including information such as the position and/or observation direction of the user. Similarly, the client terminal accepts and stores objects, at times to the expense of deleting already stored objects, based on the relevance of those objects to the client terminal, or rather the client terminal user. As such, the client terminal may determine that an object stored in the cache memory is visually less relevant than an object received from the server; and in turn, replace the less-relevant, stored object with the more-relevant, received object. And as disclosed, the visual relevance of an object may be determined based on the distance of the respective object from the user, and/or the location of the object relative to the observation direction and/or field of view of the user.

Aubault therefore discloses a system and method that bases object transmission and storage on the visual relevance of that object to the user of the client terminal to which the object is transmitted. Thus, even if adding an expiration time component to the objects transmitted to and stored by the client terminal would increase the flexibility by which the cache memory is controlled, Applicants respectfully submit that one skilled in the art would not modify Aubault to include such a component. In this regard, Aubault itself makes clear that the transmission and storage of objects are based on the visual relevance of those objects to the user, regardless of the time at which those objects are transmitted or stored, similar to the manner allegedly disclosed by Bereznyi. Even further evidencing the visual relevance of an object, Aubault explicitly discloses that the client terminal rejects objects whose visual relevance is less than all of the objects stored in the cache memory (provided the fill ratio of the cache memory is above a threshold). Clearly, should the Aubault system manage its cache memory based on an expiration time, newly transmitted objects would take precedence over already stored objects. But such a modification would change the principle of operation of Aubault in favoring more visually-

relevant, stored objects over less visually-relevant, received objects. And as stated in MPEP §
2143.01, "[a] proposed modification cannot change the principle of operation of a reference" to
support a § 103 rejection.

In response to the foregoing, the final Official Action does not dispute that Aubault
discloses a server determining which objects are transmitted to a client terminal, and the client
terminal determining what objects to store in its cache memory, based on visual relevance of
those objects to the user. However, the final Official Action alleges that such features are only
features of "exemplary embodiments" of Aubault's disclosed system, and that the principle of
operation of Aubault would not in fact be changed by modifying Aubault per Berenzi. Initially,
Applicants note that to the extent that the aforementioned features of Aubault are only
considered "exemplary embodiments," it is these "exemplary embodiments" that are being cited
for allegedly disclosing features of the claimed invention. It is these "exemplary embodiments"
of Aubault that the Official Action seeks to modify (per Berenzi) to teach Applicants' claimed
invention. And since, as explained above, the proposed modification would result in a change of
the principle of operation of the Aubault system being modified, such a modification cannot
properly support a § 103 rejection.

Moreover, Applicants note that the Official Action appears to only be relying on broad
concepts of the Aubault system to support the assertion that its principle of operation would not
change if modified per Berenzi. As explained in the MPEP, however, "[a] prior art reference
must be considered in its entirety, i.e., as a whole ...." MPEP § 2141.02. And nowhere does the
Official Action cite an apparatus disclosed by Aubault that may be modified per Berenzi in a
manner that does not change the principle of operation of that apparatus, to teach or suggest the
claimed invention.

B.   *Sending a Status of Stored Content to Remote Network Entity*

In further contrast to amended independent Claim 1, Aubault does not teach or suggest a
remote apparatus receiving a status of content stored in memory of a terminal, the apparatus
being configured to send one or more instructions to the terminal based on that status and one or
more parameters associated with the content to thereby control storage of content in memory of

the terminal. In fact, in addressing independent Claim 1, the Official Action concedes that Aubault does not teach or suggest a remote network entity controlling the storage of content by a terminal. The Official Action nonetheless alleges that Deo discloses this feature, and that it would have been obvious to one skilled in the art to modify Aubault to include it to thereby teach the claimed invention. Applicants respectfully disagree.

As explained in response to the first Official Action, Deo discloses a system and method for remotely managing memory in a portable information device from an external computer. As disclosed, the device memory is mapped into a portion of the computer memory to create a virtual device memory therein. To effectuate a change in the device memory, then, a user enters programming changes to be made to the information device. The programming changes alter the virtual device memory within the computer memory, and a memory manager resident in the computer determines what memory transactions are effective to alter the virtual device memory. The computer generates a serial stream of data indicative of memory transactions to effectuate a corresponding alteration of the device memory, and the data is transmitted to the information device to carry out the respective memory transactions and update the device memory.

Like Aubault, and in contrast to amended independent Claim 1, Deo also does not teach or suggest a remote apparatus receiving a status of content stored in memory of a terminal, the apparatus being configured to send one or more instructions to the terminal based on that status and one or more parameters associated with the content to thereby control storage of content in memory of the terminal. In fact, Deo does not teach or suggest its external computer receiving any information related to memory of its portable information device, much less receiving status information for content stored in the portable information device's memory. Instead, as explained above, Deo discloses that its external computer stores a virtual device memory that maps to the portable information device. Changes to the memory of the portable information device, then, are initiated by a user via the external computer and the virtual memory device, and then proceed to the portable information device to be carried out therein. In contrast, amended independent Claim 1 recites the remote apparatus receiving the status of content stored in memory of its portable information device for controlling the storage of such content.

Applicants therefore respectfully submit that amended independent Claim 1, and by dependency Claims 2-7, 9 and 11, is patentably distinct from Aubault, Deo and Berenzi, taken individually or in any proper combination. Amended independent Claims 12, 19, 29 and 39 recite subject matter similar to that of amended independent Claim 1, including the aforementioned controlling storage of content at a terminal based on multiple parameters associated with the content, and sending instructions from a remote network entity or apparatus to control storage of such content. Thus, Applicants also respectfully submit that amended independent Claims 12, 19, 29 and 39, and by dependency Claims 13-18, 20-28 and 30-38, are also patentably distinct from Aubault, Deo and Berenzi, taken individually or in any proper combination, for at least the reasons given above with respect to amended independent Claim 1.

In addition to the foregoing reasons, Applicants respectfully submit that various ones of dependent Claims 2-7, 9, 11, 13-18, 20-28 and 30-38 recite features further patentably distinct from Aubault, Deo and Berenzi, taken individually or in any proper combination. Examples of such dependent claims, including Claims 14-16, 21-23, 25, 31-33 and 35, are explained below.

1. *Dependent Claims 14-16, 21-23 and 31-33*

As explained in response to the first Official Action with respect to dependent Claims 14-16, 21-23 and 31-33, Applicants respectfully submit that even if one skilled in the art were motivated to modify Aubault to include an expiration time as allegedly disclosed by Bereznyi, nothing in Aubault, Bereznyi or any other prior art or general knowledge of those skilled in the art suggests the claimed invention. That is, nothing suggests that one skilled in the art modify Aubault per Bereznyi to combine application of the two parameters such that piece(s) content are deleted based on those piece(s) content having the lowest relevance from among piece(s) of content exceeding their respective expiration time(s). Rather, at best, one could argue that the combination of Aubault and Bereznyi teach the separate deletion of less relevant objects, as necessary, and the additional deletion of older objects whose expiration time has been exceeded. Dependent Claims 14-16, 21-23 and 31-33, on the other hand, recite deletion of content with a higher deletion priority from among that content whose client expiration time has been exceeded.

In response to the foregoing, the final Official Action alleges that one skilled in the art would have been motivated to combine the parameters by which content deletion decisions are made, similar to dependent Claims 14-16, 21-23 and 31-33, instead of separately applying those parameters as suggested by Applicants. As support, the Official Action alleges that applying multiple independent deletion algorithms as proffered by Applicants would consume additional processor cycles slowing down the alleged combined system, citing column 12, lines 9-11 of Berenzi. Applicants respectfully disagree.

Initially, Applicants note that the cited passage of Berenzi does not support the position taken by the Official Action. That is, the cited passage of Berenzi does not stand for the proposition that applying multiple independent deleting algorithms, presumably instead of a combined deleting algorithm, consumes additional processor cycles that would slow down the system. Rather, Berenzi discloses that a cache controller updates a cache as to expiration of an item when that item is retrieved from that cache, but that the cache controller may instead execute an update thread as to expiration of each item in its cache independent of those items being retrieved from the cache. It is this execution of an update thread independent of retrieval

of an item from cache that Berenzi explains consumes processor cycles, and not independent application of multiple deleting algorithms, as suggested in the final Official Action.

The Official Action cites no support for the proposition that the separate deletion of less relevant objects, as necessary, and the additional deletion of older objects whose expiration time has been exceeded, requires additional processor cycles relative to deleting piece(s) content based on those piece(s) content having the lowest relevance from among piece(s) of content exceeding their respective expiration time(s). Aubault quite clearly discloses (and Berenzi suggests) deleting objects from cache when a fill ratio of that cache exceeds some predetermined threshold. And for the deletion of a given number of objects to being a cache to a fill ratio within the predetermined threshold, there has been no suggestion that selecting that number of objects in either manner requires more processor cycles relative to the other manner. The particular objects selected for deletion may differ depending on the manner of their selection, but again, nothing has been suggested that the manner by which those objects are select has any benefit in the number of processor cycles.

2. *Dependent Claims 25 and 35*

Further as to dependent Claims 25 and 35, Applicants note that the Official Action continues to cite the same portion of Bereznyi to support disclosure of a client expiration time and a server expiration time. Applicants again respectfully submit, however, that even if Bereznyi does disclose an expiration time for the deletion of content from a cache, Bereznyi does not teach or suggest multiple expiration times associated with a piece of content. That is, Bereznyi does not teach or suggest both a client expiration time (from which content may be deleted from memory of a terminal), and a server expiration time (from which content may be deleted from the network entity that sends the content to the terminal), as recited by dependent Claims 25 and 35.

In response to the foregoing, the final Official Action initially alleges that Claims 25 and 35 do not explicitly recite multiple expiration times, but instead only recite times with different names but with the same claimed functionality (and without any clear distinction). Applicants respectfully disagree, and note that by separately reciting a "client expiration time" and a "server

expiration time," Claims 25 and 35 do in fact recite multiple expiration times. And by reciting that storage of content in memory of the terminal is at least partially controlled based on the client expiration time, and that storage of content in memory of the network entity is at least partially controlled based on the server expiration time (deleting content from memory of the network entity having an expired server expiration time), Claims 25 and 35 do in fact recite different functionality with respect to each expiration time.

The final Official Action also concedes that Berenzi does not disclose multiple expiration times, but alleges that "Aubault's system has both the content in the client's cache, and therefore a client expiration time, and the server's list with the same content with an associated server expiration time ([0113])." Official Action of Jul. 12, 2007, page 5. Firstly, Applicants note that alleging that Aubault discloses a client expiration time is explicitly contrary to the later concession in the final Official Action that "Aubault and Deo do not explicitly disclose where the content being additionally associated with a client expiration time ...." *Id.* at page 8. As conceded at page 8 of the final Official Action, Aubault does not in fact teach or suggest a client expiration time. And secondly, the list to which the Official Action refers is a list of content stored in cache of the client terminal, and even if that content were associated with an expiration time (by alleged combination with Berenzi or otherwise), nowhere does Aubault, Berenzi (or even Deo) teach or suggest the server deleting content from its memory based on an expired server expiration time, similar to Claims 25 and 35.
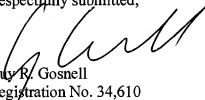
For at least the foregoing reasons, Applicants respectfully submit that the rejection of Claims 1-39 as being unpatentable over Aubault, in view of both Deo and Berenzi, is overcome.

<center>**CONCLUSION**</center>

In view of the amended claims and the remarks presented above, Applicants respectfully submit that the present application is in condition for allowance. As such, the issuance of a Notice of Allowance is therefore respectfully requested. In order to expedite the examination of the present application, the Examiner is encouraged to contact Applicants' undersigned attorney in order to resolve any remaining issues.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

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